



Safe Motherhood: Promoting Health for Women Before, During, and After Pregnancy 2002



"We as a nation must do all we can to ensure that all mothers are safe and healthy before, during, and after pregnancy. Every year, nearly 1,000 of our sisters and daughters die and hundreds of thousands of others experience medical complications from pregnancy. Death and serious illnesses due to pregnancy and childbirth shouldn't be part of the picture in the United States."

Wanda K. Jones, DrPH

Deputy Assistant Secretary for Health (Women's Health)

Director, Office on Women's Health, U.S. Public Health Service

Safeguarding the Health of Mothers

Approximately 6 million American women become pregnant each year, and more than 10,000 give birth each day. Safe motherhood begins before conception with proper nutrition and a healthy lifestyle. It continues with appropriate prenatal care, the prevention of complications when possible, and the early and effective treatment of any complications that do occur. The ideal result is a labor at term without unnecessary interventions, the delivery of a healthy infant, and a healthy postpartum period in a positive environment that supports the physical and emotional needs of the woman, infant, and family.

Deaths From Pregnancy Complications: No Decline in 20 Years

Each day in the United States, two to three women die of pregnancy complications. From 1900 to 1982, deaths from pregnancy complications in the United States declined dramatically. Since 1982, however, deaths stopped declining, and there has been no further improvement. Studies indicate that as many as half of all deaths from pregnancy complications could be prevented through broader access to health care, better quality of care, and changes in health and lifestyle habits.

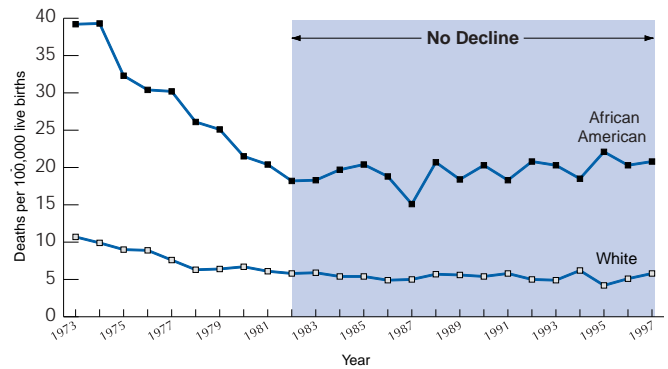
The leading causes of maternal deaths are hemorrhage, blood clot, high blood pressure, infection, strokes, amniotic fluid in the bloodstream, and cardiomyopathy (heart muscle disease).

Large Racial, Ethnic, and Age Disparities

A woman's race, ethnicity, country of birth, and age are associated with her risk of dying from pregnancy complications. For example,

- African American women are 4 times as likely to die of pregnancy complications compared with white women, and American Indian and Alaska Native women are nearly twice as likely to die.
- Asian and Pacific Islander women who immigrated to the United States are twice as likely to die of pregnancy complications as those born in the United States. Hispanic women who immigrated are 1.5 times as likely to die as those born in the United States.
- Women 35–39 years old are nearly 3 times as likely to die of pregnancy complications as women 20–24 years old. The risk of dying is even greater for women over 40.

African American and White Women Who Died of Pregnancy Complications,* United States, 1973–1997



*Annual number of deaths during pregnancy or within 42 days after delivery, per 100,000 live births.

Source: CDC, National Center for Health Statistics.

Deaths Only Part of the Picture

More than one in three pregnant women in this country develop a pregnancy complication. The most common complications include

- Miscarriage.
- Ectopic pregnancy.
- Hemorrhage.
- Infection.
- Diabetes.
- High blood pressure.
- Excessive vomiting.
- Premature labor.
- Need for a caesarean delivery.
- Depression.

Childbirth remains the most common reason for hospitalization in the United States, and pregnancies with complications result in more costly hospitalizations. In the United States, hospitalizations for pregnancy complications before delivery account for more than 2 million hospital days of care each year and cost more than \$1 billion annually. These figures would be even higher if we took into account complications during or after delivery.

Economic costs are not the only concern. Pregnancy complications and deaths also cause pain and suffering. We need to learn more about how pregnancy complications affect women and their infants and families.

CDC's National Leadership and State Partnerships

The Safe Motherhood Initiative

CDC and its many partners are making major strides in safeguarding the health of mothers. Supporters of healthy motherhood include not only health departments and other federal agencies but also universities, private practices, advocacy groups, professional organizations, and businesses. In 2001, CDC and its partners

- Held the first U.S. Summit on Safe Motherhood, which brought together a broad coalition of agencies, organizations, and professionals dedicated to improving maternal health. They discussed the social, economic, and medical aspects of maternal health and called for research, policies, and coordinated action to make maternal health a national priority.
- Published *Strategies to Reduce Pregnancy-Related Deaths: From Identification to Action*. This guide helps states identify maternal deaths, expand the types of data collected about deaths, and apply the findings to protect women's health.
- Published a journal issue devoted to studies of what is unique about the experience of being an African American woman that puts her at higher risk for having a premature baby. Racism, limited health care options, and poor-quality housing are some of the problems explored.
- Expanded the Pregnancy Risk Assessment Monitoring System so that surveys of new mothers are conducted in 32 states and New York City and now cover 62% of all U.S. births.

CDC works with states to translate science into quality programs. As partners, CDC and states can reduce pregnancy complications and save lives—by monitoring maternal health, conducting research, and educating people about safe motherhood.

Pregnancy Mortality Surveillance System (PMSS).

Through the PMSS, CDC works with state health departments and other organizations to identify and gather information on pregnancy-related deaths. CDC uses PMSS data to examine

- Trends in pregnancy-related deaths.
- Risk factors for pregnancy-related death.
- Disparities related to race, ethnicity, and age.
- Specific conditions leading to death.

Maternal and Child Health Epidemiology Program (MCHEP).

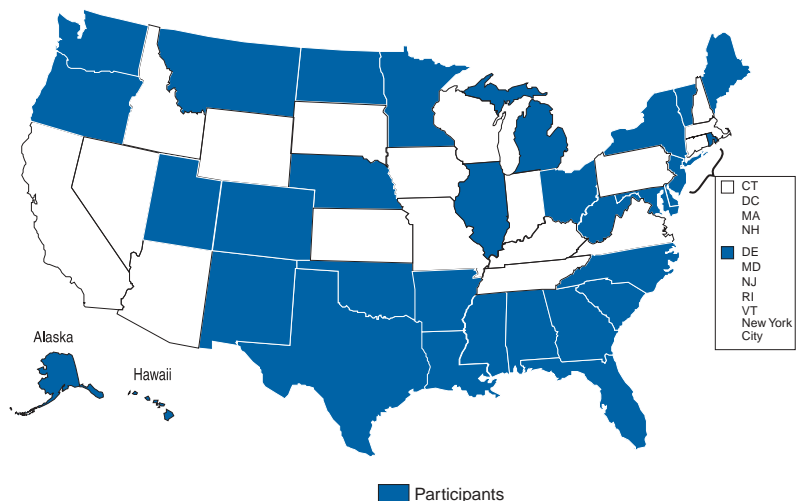
This program helps state and local health departments collect and analyze data needed to improve the health of mothers and children. CDC and the Health Resources and Services Administration (HRSA) support the MCHEP. Through the MCHEP, epidemiologists specializing in maternal and child health serve 10 states and two Indian health agencies. MCHEP also provides technical assistance and training to public health staff and sponsors

conferences and Internet groups where peers can share their knowledge about maternal and child health.

Pregnancy Risk Assessment Monitoring System (PRAMS).

CDC and state health departments use PRAMS to collect state-specific, population-based data on women's behaviors and experiences before, during, and immediately after pregnancy. These data identify groups of women at high risk for health problems, monitor changes in health status, and measure progress in improving the health of mothers and infants. PRAMS surveys are now conducted in 32 states and New York City.

PRAMS Participants, 2002



Learning More, Making a Difference

Conducting Innovative Research

To learn more about how to improve women's health before, during, and after pregnancy, CDC supports innovative research, including the following projects:

- **Racial and ethnic differences in pregnancy complications and deaths.** One of the greatest racial gaps in public health is the fact that African American women are four times as likely as white women to die of pregnancy complications. CDC is examining national data to find out why the risks for complications and deaths are so much greater among these women. CDC also is collaborating with researchers in North Carolina to explore whether African American women have more severe pregnancy complications than white women and whether they receive different treatment when they seek medical care for pregnancy complications.
- **Intimate partner violence among pregnant women.** Each year, up to 300,000 pregnant women in the United States are victims of intimate partner violence. Violence is more common among pregnant women than many conditions for which they are routinely screened. CDC and the American College of Obstetricians and Gynecologists developed training materials clinicians can use to screen women for violence during prenatal care visits. Moreover, CDC is funding an evaluation of a model intervention in which screening for violence is a routine part of obstetric and gynecological care. This evaluation also will help determine whether abused women who are identified through screening get the help they need.
- **Effects of high-tech infertility treatments.** In vitro fertilization and other high-tech infertility treatments are an increasingly common choice for the estimated millions of couples who face infertility each year. In 1999, more than 86,000 such procedures were performed in the United States, and over 30,000 babies were born as a result. CDC is now working with Massachusetts to study how these procedures affect the health of mothers and their infants.

Gathering Strong, Useful Data

Here are some of the ways that CDC and its partners are addressing the need for more complete and accurate information about pregnancy complications and deaths:

- Working with researchers in Oregon, Washington, and Illinois to find the best ways to identify and monitor pregnancy complications and risk factors.
- Collaborating with researchers in six cities to better understand how stress and infections affect the health of pregnant women and their babies.
- Expanding PRAMS and MCHP to more states, strengthening the states' ability to identify and address maternal and child health problems.
- Analyzing national and state data to learn more about pregnancy complications and to identify factors involved when a woman dies or almost dies of pregnancy complications.

Educating and Training Others

CDC works with many partners to share knowledge about safe motherhood. For example, CDC is

- Identifying strategies that health care providers can use to reduce pregnancy complications.
- Reporting trends in maternal and child health for states to use in program planning.
- Training public health professionals to better understand maternal and child health problems and potential solutions.
- Working with women in Los Angeles communities to develop educational materials that will help pregnant women recognize the warning signs of preterm labor.
- Producing a *Maternal and Child Health Journal* issue highlighting the latest research on the health of women before, during, and after pregnancy.

CDC also helped to prepare *Healthy People 2010* goals that aim to dramatically improve the health and well-being of mothers in America over the next decade. To help the nation meet these goals, CDC will work with other federal agencies, states, nonprofit organizations, and community groups. As partners, we can make safe motherhood a reality.

For more information or additional copies of this document, please contact the
Centers for Disease Control and Prevention,
National Center for Chronic Disease Prevention and Health Promotion, Mail Stop K-20,
4770 Buford Highway NE, Atlanta, GA 30341-3717; (770) 488-6250.
ccinfo@cdc.gov www.cdc.gov/nccdp/hp/dhr